

DISCUSSION OF THE AMENDMENT

Claim 1 has been amended by inserting the term --reactive-- before each of “composition A point” and “composition B point”, as at least implicitly supported by any of Figs. 1-4 and corresponding disclosure, which show that the claimed method is performed continuously from point A to point B without shutting off the feed of either the material to be oxidized or the gas containing molecular oxygen.

Claim 6 has been amended to be consistent with the above-discussed amendment to Claim 1.

No new matter is believed to have been added by the above amendment. Claims 1, 3, 4 and 6-10 remain pending in the application.



REMARKS

Applicants thank the Examiner and the Examiner's supervisor for the courtesy extended to Applicants' attorney during the interview held February 24, 2010, in the above-identified application. During the interview, Applicants' attorney explained the presently-claimed invention and why it is patentable over the applied prior art. The discussion is summarized and expanded upon below.

The rejections of Claims 1-3 and 7-10 under 35 U.S.C. § 102(e) as anticipated by, and of Claims 4 and 6 under 35 U.S.C. § 103(a) as unpatentable over, US 2004/0015012 (Hammon et al), are respectfully traversed.

As recited in above-amended Claim 1, an embodiment of the present invention is a method for supplying reaction gases in a catalytic gas-phase oxidation reaction in which at least a material to be oxidized and a gas containing molecular oxygen are mixed and the resultant mixture is supplied to a catalytic gas-phase oxidation reactor, wherein a feed rate of the material to be oxidized and a feed rate of the gas containing molecular oxygen are adjusted so that when a composition of a gas at the inlet of the catalytic gas-phase oxidation reactor is changed from a reactive composition A point [the concentration of the material to be oxidized:  $R(a)$ , and the concentration of oxygen:  $O(a)$ ] represented by plotting a concentration of the material to be oxidized and a concentration of oxygen in the gas at said inlet to a reactive composition B point [the concentration of the material to be oxidized:  $R(b)$ , and the concentration of oxygen:  $O(b)$ ] [with a proviso that the composition A point and the composition B point are compositions outside a range in which the material to be oxidized and oxygen possibly react to cause explosion (an explosion range), and  $R(a) \neq R(b)$  and  $O(a) \neq O(b)$ ], compositions on the way of the change from the composition A point to the composition B point fall outside the explosion range, wherein the material to be oxidized is isobutylene, tertiary butyl alcohol or methacrolein, wherein one of the feed rates of the



material to be oxidized and the gas containing molecular oxygen is adjusted in advance by increasing it or decreasing it to the direction away from the explosion range and then the other feed rate is adjusted by increasing it or decreasing it to reach to the composition B point so that the compositions on the way of the change from the composition A point to the composition B point fall outside the explosion range.

Claim 6 is drawn to a related embodiment, which is a computer-readable medium.

Thus, the present invention is characterized by increasing or decreasing a feed rate of a gas, and then increasing or decreasing a feed rate of another gas **without shutting off a feed.**

In response to Applicants' arguments in the previous response that Hammon et al discloses a process in which a feed of gas streams is automatically stopped by a computer system if the distance from the operating point to the nearest explosion limit is below a predetermined minimum value [0058]-[0062], while the present invention instead increases or decreases a feed rate of a gas, and then increases or decreases a feed rate of another gas, in order to make a detour as shown in present Fig. 1 and thereby safely avoid an explosion on increase or decrease of an operating load, the Examiner finds that the term "decreasing" in the present claims can be interpreted as including decreasing to zero. However, as agreed to at the above-referenced interview, the above-discussed amendment would exclude this possibility.

Accordingly, it is respectfully requested that the rejection be withdrawn.



Application No. 10/564,503  
Reply to Final Office Action of December 17, 2009

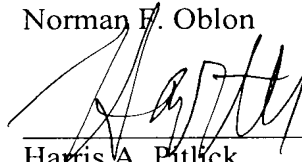
All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/07)

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon

A handwritten signature in black ink, appearing to read 'Harris A. Pitlick', is written over a horizontal line.

Harris A. Pitlick  
Registration No. 38,779